

WHAT IS CLAIMED IS:

1. A soap dispenser system comprising:

a suction tube including:

5 a main through bore for supplying water from a water line pipe to a shower head, and

a soap supply bore intersecting said main through bore;

a soap dispenser positioned remote from the suction tube for controlling dispensing of soap from a container having soap therein; and

a supply tube connecting the soap dispenser to the soap supply bore of the suction tube in order to provide soap from said soap dispenser to said suction tube by means of suction created by the water traveling through the main through bore of the suction tube;

the soap dispenser including:

an inner tube having an inlet and an outlet fluidly connected with said supply tube,

20 an outer tube movably mounted over said inner tube and connected with the container, said outer tube having an inlet adapted to be fluidly connected with soap from the container and an outlet adapted to be fluidly connected with the inlet of the inner tube,

a biasing device for applying pressure between said inner tube and said outer tube in a direction to move said inner tube and outer tube apart,

a valve for permitting soap to enter said inlet of
5 said inner tube when said outer tube is moved toward the inner tube against the force of said biasing device and which prevents soap from entering said inlet of said inner tube when said outer tube is moved away from the inner tube by said biasing device.

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2. A soap dispenser system according to claim 1, wherein said valve includes a member which covers said inlet of said inner tube when said biasing device moves said inner tube and said outer tube apart and which uncovers said inlet of
15 said inner tube when said outer tube is moved toward the inner tube against the force of said biasing device.

3. A soap dispenser system according to claim 2, wherein said member of said valve includes an inner wall which
20 covers and uncovers said inlet of said inner tube and an outer wall connected with said inner wall and which engages with said outer tube for moving said inner wall relative to said inner tube to cover and uncover said inlet of said inner tube.

4. A soap dispenser system according to claim 3, wherein
said inner tube includes a first stop for limiting movement
of said inner wall therealong in a first direction to a
first position in covering relation to said opening and a
5 second stop for limiting movement of said inner wall
therealong in a second opposite direction to a second
position in uncovering relation to said opening.

5. A soap dispenser system according to claim 3, wherein.
10 said outer wall is in frictional engagement with said outer
tube.

6. A soap dispenser system according to claim 1, wherein
said biasing device includes a coil spring connected between
15 said inner tube and said outer tube.

7. A soap dispenser system according to claim 6, further
including a free floating ball between said spring and said
outer tube for providing a seal of the inlet of said outer
20 tube when said outer tube is moved toward the inner tube
against the force of said biasing device and which releases
the seal of the inlet of said outer tube when said outer
tube is maintained in a position moved toward the inner
tube.

8. A soap dispenser system according to claim 1, wherein said outer tube is secured to a neck of the container.

9. A soap dispenser system according to claim 1, wherein
5 said suction tube is a venturi suction tube having a main through bore which flares outwardly in diameter from an inner end to an outer end thereof.

10. A soap dispenser system according to claim 1, wherein
10 the valve of the soap dispenser includes:

a first biased seal for permitting soap to travel through said inner tube when a release force is applied to said container and for preventing soap to travel through said inner tube when a the release force is not applied to
15 said container,

a second biased seal for preventing soap from escaping from said container through said outer tube when the release force is applied to said container and for permitting soap to escape from said container through said outer tube when
20 the release force is not applied to said container, and

a chamber between said first and second biased seals for accumulating a metered dosage of soap for supply to said supply tube, such that said chamber is loaded with said metered dosage of soap when the release force is not applied

to said container, and the metered dosage of soap is supplied through said inner tube when the release force is applied to said container.

- 5 11. A soap dispenser system according to claim 10, wherein said inner tube includes an inner sealing surface and said first biased seal includes a ball and a spring mounted in said inner tube for biasing said ball into sealing engagement with said inner sealing surface.

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12. A soap dispenser system according to claim 11, wherein said inner sealing surface is a part-spherical surface.

13. A soap dispenser system according to claim 10, wherein
15 said outer tube includes an inner sealing surface and said second biased seal includes a ball and a spring mounted in said outer tube between said inner tube and the ball for biasing said ball into sealing engagement with said inner sealing surface.

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14. A soap dispenser system according to claim 13, wherein said inner sealing surface is a part-spherical surface.

15. A soap dispenser system according to claim 1, wherein said soap supply bore is fluidly connected to said main through bore adjacent said inner end.

5 16. A soap dispenser system according to claim 1, wherein said suction tube includes an outer surface having a recess therein, and a hollow central post in said recess which is in fluid communication with said soap supply bore, said hollow central post having a free end which substantially
10 does not extend radially outward past said outer surface.

17. A soap dispenser system according to claim 1, wherein said soap dispenser includes a cup adapted to be mounted to a wall of a shower, the cup having a spout connected with
15 said supply tube, and the inner tube being mounted in said cup in fluid communication with said spout.

18. A soap dispenser system according to claim 17, wherein said cup includes a bottom wall and an internal boss
20 connected with said bottom wall for mounting said container in spaced relation from said bottom wall.

19. A soap dispenser system according to claim 17, wherein:

said cup includes a bottom wall having at least one opening therein, and

said container is in spaced relation from said bottom
5 wall.